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RHODA MAINES

EARLY SCIENTISTS WERE MODEST (BICENTENNIAL)
(INSERTS IN TAPE LIBRARY)

ANNCR:

THE VOICE OF AMERICA PRESENTS...ENCOUNTERS WITH SCIENCE ...A WEEKLY REPORT ON THE WORK OF AMERICAN SCIENTISTS. TODAY: EARLY SCIENTISTS WERE MODEST.

VOICE:

IN THIS UNITED STATES BICENTENNIAL YEAR, A LOOK BACK TO EARLIER YEARS SHOWS AMERICAN SCHOLARS FELT OVERSHADOWED BY THEIR EUROPEAN COLLEAGUES. BY THE TIME AMERICA BECAME A GOING CONCERN, THE GREAT SCIENTIFIC REVOLUTION OF THE 17TH AND 18TH CENTURIES HAD ALREADY TAKEN PLACE. IN THE 1830'S, A GROUP OF AMERICAN SCIENTISTS VISITED EUROPE. DOCTOR BRUCE SINCLAIR, OF THE INSTITUTE FOR THE HISTORY AND PHILOSOPHY OF SCIENCE AND TECHNOLGY, UNIVERSITY OF TORONTO, CANADA, TELLS WHY THEY WENT.

TAPE: CUT ONE -- SINCLAIR

"I THINK THE MAIN PURPOSE OF THEIR TRIP WAS TO DISCOVER FOR THEMSELVES WHAT THE EUROPEAN SCIENTISTS WERE UP TO...IN A SENSE, TO DISCOVER WHAT KINDS OF THINGS WERE INTERESTING TO EUROPEAN SCIENTISTS AND TO LEARN THEMSELVES HOW THEY MIGHT BETTER BRING AMERICAN SCIENCE UP TO THAT LEVEL OF ACTIVITY. IT WAS, IN A SENSE, A TRIP OF PERSONAL DISCOVERY. THEY WERE AMONG THE FIRST GENERATION OF PROFESSIONAL SCIENTISTS IN AMERICA."

VOICE:

WHO WENT ON THESE TRIPS TO EUROPE? IN ONE GROUP WERE TWO PHYSICISTS, JOSEPH HENRY AND ALEXANDER DALLAS BACHE. HENRY HAD MADE SOME REMARKABLE DISCOVERIES IN ELECTRICITY AND MAGNETISM; AND BACHE INVESTIGATED TERRESTRIAL MAGNETISM. THEY WERE JOINED BY BOTANIST ASA GRAY WHOSE

PUBLISHED WORKS ESTABLISHED HIS REPUTATION AS ONE OF THE GREATEST BOTANISTS OF HIS CENTURY. DESPITE THEIR ACCOMPLISHMENTS, UPON ARRIVAL IN EUROPE, THEY FELT SOME TREPIDATION.

OPT

TAPE: CUT TWO -- SINCLAIR

"THEY HAD NOT BEEN TO EUROPE BEFORE. THEY WERE SELF-CONSCIOUS ABOUT BEING AMERICANS. THEY WERE SELF-CONSCIOUS ABOUT BEING SCIENTISTS...BECAUSE THEY KNEW THAT AMERICA DIDN'T ENJOY AN ESTABLISHED SCIENTIFIC REPUTATION. AND THEY WEREN'T ALWAYS EXACTLY SURE HOW TO COMPORT THEMSELVES IN ENGLISH SOCIETY. AND YET, AT THE SAME TIME, THEY WERE REASONABLY CONFIDENT OF THEIR ABILITIES."

VOICE:

BESIDES MAKING SOCIAL AND SCIENTIFIC FRIENDS, THEY BROUGHT BACK BOOKS AND SCIENTIFIC EQUIPMENT WHICH WERE DIFFICULT OR IMPOSSIBLE TO OBTAIN IN AMERICA. THEY ALSO BROUGHT BACK SOMETHING EVEN MORE VALUABLE.....

TAPE: CUT THREE -- SINCLAIR

"...THEY BROUGHT BACK A RENEWED CONFIDENCE IN THEIR OWN ABILITIES AND IDEAS ABOUT HOW BETTER TO ADVANCE THE STATE OF AMERICAN SCIENCE. FOR EXAMPLE, JUST SIMPLY FROM LEARNING ABOUT ENGLISH SCIENTISTS...ABOUT THEIR WORK...ABOUT THEM AS PEOPLE, THE AMERICANS GOT A BETTER ESTIMATION OF THEIR OWN ABILITIES. HENRY SUGGESTED SOMETHING TO THAT EFFECT WHEN HE WROTE A LETTER TO GRAY. HE MENTIONED IN PASSING THAT THE AMERICANS HAD BEEN INCLINED TO THINK OF EUROPE, AT LEAST AS RESPECTS SCIENCE, AS SOMETHING ALMOST LIKE A FAIRY-LAND... AND THE PEOPLE WHO INHABITED THE EUROPEAN SCIENTIFIC COMMUNITIES..AS NEAR GODS. THAT WASN'T SO, HENRY TOLD GRAY. THEY WERE ORDINARY MORTALS, SOME OF WHOM WERE EVEN, IN FACT, INFERIOR TO THEMSELVES...AND THAT GRAY SHOULD APPRECIATE THAT FACT AND CONDUCT HIMSELF ACCORDINGLY...ALTHOUGH BE CAREFUL NOT TO LET IT SWELL HIS HEAD BECAUSE THERE WAS ALWAYS THE DANGER THAT AMERICANS COULD LOOK BOASTFUL OR POMPOUS IN OTHER WAYS..."

VOICE:

HOW IMPORTANT WAS THIS SCIENTIFIC TRIP TO EUROPE? IT'S DIFFICULT TO PIN DOWN EXACTLY.

TAPE: CUT FOUR -- SINCLAIR

"YOU CAN'T IDENTIFY THEIR RETURN TO AMERICA WITH AN EXPLICIT, IMMEDIATELY IDENTIFIABLE EVENT THAT SOMEHOW FOREVER, OR THEN, ALTERED THE COURSE OF THINGS. THAT'S NOT THE WAY THINGS NORMALLY HAPPEN IN FACT. BUT THE IMPORTANCE OF IT HAS TO DO WITH THE FACT WHEN THEY RETURNED TO THE STATES, THEY WERE MORE THAN EVER CONVINCED OF THE NECESSITY, AS THEY PUT IT, TO STAMP OUT CHARLATANISM...TO RID THE COUNTRY OF FAKERY IN SCIENCE...TO ESTABLISH STANDARDS OF EXCELLENCE IN SCIENCE THAT WOULD MATCH THOSE OF EUROPE..."

VOICE:

SCIENCE IN AMERICAN COMING OF AGE IS PART OF THE AMERICAN HERITAGE IN THIS BICENTENNIAL YEAR.

ANNCR:

THIS HAS BEEN ENCOUNTERS WITH SCIENCE...A REPORT ON THE WORK OF AMERICAN SCIENTISTS. YOU HEARD TODAY: EARLY SCIENTISTS WERE MODEST. THIS PROGRAM WAS PRODUCED IN COOPERATION WITH THE UNITED STATES NATIONAL SCIENCE FOUNDATION.

RC/LP